

CLAIMS

1. (Currently Amended) A method for use in a network element of a packet-based network, the method comprising the steps of:

storing failure information associated with the packet-based network and usage information for a backup resource;

upon receipt of a new demand, determining if the backup resource is shareable as a function of the failure information and the usage information; [[.]]

wherein:

the failure information is associated with links of the packet-based network;

the backup resource is a backup path;

the usage information is related to a bandwidth associated with the backup path;

the new demand has an associated bandwidth, d ; and

the determining step includes the steps of:

determining, from the failure information, if a simultaneous failure can occur on the backup path and a primary path; and

if no simultaneous failure can occur, updating usage information for the backup path as a function of the bandwidth d associated with the new demand.

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) The method of claim 1 [[3]] wherein the updating step includes the step of determining, from the updated usage information, if the backup path can support the new demand such that if the new demand cannot be supported the new demand is rejected.

5. (Currently Amended) A network element for use in a packet-based network, the network element comprising:

a memory for storing failure information associated with the packet-based network and usage information for a backup resource; and

a processor, responsive to receipt of a new demand, for determining if the backup resource is shareable as a function of the failure information and the usage information;
[[.]]

wherein:

the failure information is associated with links of the packet-based network;

the backup resource is a backup path;

the usage information is related to a bandwidth associated with the backup path;

the new demand has an associated bandwidth, d ; and

the processor determines if the backup resource is shareable by:

determining, from the failure information, if a simultaneous failure can occur on the backup path and a primary path; and

if no simultaneous failure can occur, updating the usage information for the backup path as a function of the bandwidth d associated with the new demand.

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) The network element of claim 5 [[7]] wherein as part of the updating of the usage information, the processor determines, from the updated usage information, if the backup path can support the new demand such that if the new demand cannot be supported the processor causes the new demand to be rejected.

9. (Currently Amended) A network element for use in a packet-based network, the network element comprising:

a memory for storing failure information associated with a number of links of the packet-based network;

a communications interface for coupling to a link that is a part of a backup path;
and

a processor, responsive to receipt of a new demand, for determining if the backup path is shareable with the new demand as a function of the failure information and usage information associated with the backup path; [[.]]

wherein the processor rejects the new demand if the backup path and a primary path associated with the new demand are determined, from the failure information, to be capable of failing simultaneously.

10. (Cancelled)

11. (Original) The network element of claim 9 wherein the processor rejects the new demand if the backup path cannot support the new demand based upon the usage information.